

Internship in Electrical Engineering

Supervisor	Prof. Dr. Paulo Ricardo da Silva Pereira
Project	Automation and Smart Grids, Embedded Systems, Health Technologies, Simulation, Energy Quality and Industry 4.0, Rural Electrification, Renewable Sources and Distributed Energy Resources.
Description	<p>Line 1: Embedded Systems and Health Technologies Participate in the project focused on studies of contaminants and micropollutants in water and effluent matrices and their effects on the environment and the health of the population. This stage deals with the development of a low-cost electronics system for the instantaneous detection of emerging contaminants (EC).</p> <p>Line 2: Power Quality and Industry 4.0 The project consisted of mapping the main consumers of electricity on the university campus, assessing the potential for reducing consumption and demand for electricity, as well as analyzing the impacts of energy efficiency actions on the power quality (PQ), evaluating the propagation of PQ disturbances in the university's electrical system.</p>
Tasks	<p>Line 1: Assist in the research of sensors, procedures, and tests for the identification of emerging contaminants and micropollutants in water and effluent matrices; interact with undergraduate and graduate students involved in the project.</p> <p>Line 2: Monitoring the installation of energy quality recorders in priority loads and sectors; modeling the electrical system using simulation tools; characterizing typical load and disturbance curves under normal operating conditions; simulating and evaluating energy efficiency actions and their impacts on the power quality; interacting with undergraduate and graduate students involved in the project.</p>
Requirements	
Language Skills	English (Portuguese would be nice, but is not necessary).
Duration	4-6 months
Possible Beginning	February/March or July/August.
Credits	According to agreement
Payment	None